DOCUMENT RESUME

ED 328 084 FL 019 053

AUTHOR Marmaridou, A. Sophia S.
TITLE Cognitive Structures in BBC Financial Reports.
PUB DATE Apr 90
NOTE 18p.; Paper presented at the Meeting of the World Congress of Applied Linguistcs sponsored by the International Association of Applied Linguistics (9th, Thessaloniki, Greece, April 15-21, 1990).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Cognitive Structures; Discourse Analysis; *Economics; Foreign Countries; *Language Patterns; Language Research; Linguistic Theory; *Metaphors; Motion; *News Writing; Physical Characteristics; Psychological Patterns; *Radio; Semantics; Social Behavior
IDENTIFIERS *British Broadcasting Corporation

ABSTRACT

Extracts from financial reports broadcast on two British Broadcasting Corporation (BBC) radio channels are analyzed for cognitive structures that affect the conceptual organization of this discourse type. The approach used for the analysis is based on two assumptions in the relationship of communication and cognition. These are: (1) financial reports must be cognitively structured in terms of image schemas and metaphorical imagery that enable the understanding of abstract financial concepts in terms of direct, physically significant domains of experience; and (2) physical reality as experienced by the human body, together with the cognitive capacity for image schemas, metaphor, etc., shape cognitive processes. In the analysis, linguistic expressions are examined in terms of scene-and-frame semantics. Five major semantic concepts regularly realized linguistically in financial reports (motion, physical state, psychological state, social behavior, and aggression) are analyzed in the discourse in question. It is concluded that two conceptual metaphors appear in financial reports: financial concepts are seen as persons and financial activity is seen as war, i.e., aggression. In addition, talking about financial affairs in these terms affects thinking and action in relation to this domain of experience. Therefore, the study of metaphor can illuminate processes affecting the cognitive structure of discourse. (MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED328084

December, 1990

Cognitive Structures in BBC Financial Reports*

A. Sophia S. Marmaridou

English Department, University of Athens

THEORETICAL BACKGROUND

This paper concerns the description and analysis of some cognitive structures that occur in BBC radio financial reports and affect the conceptual organization of this particular discourse type.

These financial reports are extracts from a 7-hour recording of BBC Radio 1 and Radio 4 news bulletins expanding over a period of 8 weeks.[1]

Crucial in the approach I am adopting for the analysis of discourse is the issue of communication in relation to cognition. Although I believe that deductive reasoning plays a significant role in cognition, I also believe that it is not the only cognitive process that affects human communication. My theoretical commitment at this point is to non-objectivist, experiential, cognitive semantics, as advocated in Lakoff and Johnson (1980), Lakoff (1987), Langacker (1987), and Lakoff and Turner (1989), whereas my analysis of the particular linguistic units ows a lot to Fillmore's (1977) scene-and-frame semantics. I will not attempt here to outline these theoretical frameworks. However,I will mention very briefly their basic principles that are also reflected in my analysis.

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

A. Marmaridou

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

FL019053

In experiential semantics, meaningfulness involves not merely mental structures, as in the objectivist paradigm, but the structuring of experience itself. In these terms, our experience is structured kinesthetically in a variety of domains due to our vertical orientation, the nature of our bodies as containers and as wholes with parts, our ability to sense hot and cold, etc. In domains where there is no clearly discernible structure to our experience, we import such structure via metaphor. Metaphor, construed here as a general cognitive capacity rather than as a stylistic device, provides us with a means for comprehending domains of experience that do not have a preconceptual structure of their own. Much of rational thought involves the use of metaphoric models.[2] As a result of the above, we typically conceptualize the non-physical in terms of the physical.

Given this experiential approach to semantics, the analysis of any type of discourse takes a new orientation. Apart from the semantic and pragmatic components of meaning that weave the texture of discourse (cf.Dijk, 1977, Marmaridou, 1987), it now becomes important to examine the conceptual structures and the imagery that are revealed in a discourse type, which seem to be largely responsible for our understanding of particular messages on the one hand, and, on the other, shape the text itself and redefine our perception of reality and our thinking processes.

The analysis of my data will proceed on the basis of two assumptions. First, that since financial reports inevitably contain information that focuses on abstract financial concepts, and if Lakoff's thesis that the non-physical is partly understood in terms of the physical is correct, then financial reports must be cognitively structured in terms of image schemas and metaphorical imagery that enable us to understand abstract financial concepts in terms of direct, physically significant domains of experience.

If this assumption, stated above, proves to be tenable, then it will be possible to also support the second assumption, which states that physical reality as experienced by the human body, together with our cognitive capacity for image schemas, metaphor, etc., shape our cognitive processes. Our cognitive processes are reflected in language. But then language becomes an aspect of our experienced reality. As such, it is responsible for shaping back our cognitive processes, i.e. the way we think. In terms of financial reports, our experience of physical reality with our cognitive capacity for metaphor, enables us to understand financial concepts in a particular way which is realized linguistically. But once it is so realized, it starts shaping the way we think about financial affairs, and thus begins to define a socio-cultural parameter that affects and controls not only the way we think, but inevitably, the way we live our lives. Therefore, I view the relationship between language, thought and life as an interactive and dialectal organization of physical experience, cognitive processes and communication processes.

So much about the cognitive approach to my data. The linguistic approach consists in lexically analysing liguistic expressions in terms of Fillmore's (1977) scene-and-frame semantics, which also subscribes to a non-objectivist theory of human reasoning and understanding. Fillmore claims that our knowledge of any linguistic form is available to us in connection with some personally meaningful setting or situation. Such situations comprise <u>scenes</u>, which include any kind of coherent segment, large or small, of human beliefs, actions, experiences or imaginings. Any linguistic choices that can get associated with prototypical instances of scenes, e.g. words, grammatical rules, grammatical categories, etc., constitute <u>frames</u>. Scenes and frames activate each other and are mutually retrievable, i.e. a scene can activate an associated frame, and a frame can activate its associated scene.

The significance of this particular linguistic model of semantic analysis for my research lies in that, being non-objectivist in philosophical principle, it allows for the description of linguistic expressions in terms of situations that, on my interpretation, reflect domains of experience, which are also relevant in the cognitive structure of the discourse type under examination.

THE ANALYSIS OF THE DATA

Having briefly discussed the theoretical and methodological background of this work, and having stated the two assumptions that it is my aim in this paper to test and validate, if possible, I would now like to turn to the analysis itself.

It appears that there are five major semantic concepts that are regularly and indispensably realized linguistically in financial reports: motion, physical state, psychological state, social behaviour and aggression. I shall examine each one of them separately.

First, motion: It is perhaps the most dominant category that gets linguistically realized in financial reports.[3] Its realization involves motion verbs and their derived nouns, prepositions, and other verbs which, although not normally categorized as motion verbs, yet lexically imply some kind of movement. A consequence of the use of such verbs is the fact that many financial concepts are perceived as moving objects in space and time. For example, the way we visualize climbing in (1)

(1) Shares on Wall Street are also climbing....

is part of a scene in which a concrete object assumes an upward movement over a sloping or completely vertical surface. Moreover, the movement is gradual and usually effortful. Conceptualizing shares performing this kind of movement, i.e. climbing, suggests both the difficulty of the enterprise and its duration over time. A different image is created by the use of jump in (2):

(2) The dollar jumped four pfenning at one German mark sixty-seven point eight.

In this case the movement is momentary and sudden, possibly not expected.
The trade deficit in (3)

(3) .... with the U.S. trade deficit running at an annual rate of more than ....

is running, i.e. moving very fast in a specific direction, its speed being the annual rate. Prepositions such as up, down, above, ahead, etc. are also used to spatialized financial concepts, either in combination with verbs of motion as in (4), (5) and (6),

(4) ... the deduction rate is going down .../ up ...

(5) ... the one hundred index never went above zero.

(6) The Pearson Group rocketted ahead...

or with existential verbs as in (7)

(7) Share prices are up...

in which case the preposition is used to "restore", so to speak, movability through the implication that what is up may go down and the reverse, i.e. what is down goes up.

An important consequence of the use of these motion frames is that they define a topography of space which apparently reflects the vertical orientation of the human body.[4] Thus, in the majority of cases, motion frames indicate vertical movement and the vertical dimension of space e.g. rise, drop, fall, lift, jump, up, down, etc. In the remaining cases, motion frames evoke images that allow horizontal movement, e.g. move ahead, go ahead, run, transfer, follow, halt, push, etc., but at the same time do not disallow vertical movement.

Also significantly, there are frames evoking the image of uncertain or unstable movement, as in (8) and (9) :

(8) ... in the wide <u>fluctuations</u> and <u>lurches</u> seen in the currency and share markets.

(9) ... The value of the dollar <u>wavered</u> on the foreign exchanges...

Note here the culturally negative connotations and implications of such frames as opposed to the positive image created by stability in (10)[5] :

(10) ... the fall in the deficity.... may help to bring more <u>stability</u> to nervous markets....

Finally, there are frames which, although not typically associated with motion, evoke images that picture some kind of movement, as in (11) and (12):

(11) ... Blue Arrow have unveiled annual profits....

(12) ... with a share index wiping out a small loss....

Note how unveil evokes a scene in which a veil is removed to reveal something, usually something of significance, in this case annual profits. Similarly, wiping out suggests a kind of movement which aims to make something disappear, to undo something, in this case the undesirable loss.

Let us now examine how we conceptualize financial affairs in terms of motion. Perhaps the most important characteristic of motion is that it involves some kind of agent or initiator.[6] Undoubtedly, the human body is such an initiator. In fact, motion is crucial to the existence and development of living organisms and corresponds to a very basic domain of their experience, and of human beings in particular. Now, given that the various financial transactions and concepts are abstract in nature, and given, according to the theory, that the non-physical is understood in terms of the physical, we expect that financial transactions and concepts must be understood in terms of some kind of physical reality via the cognitive process of metaphor. The metaphor I am suggesting here and which, I believe, explains and structures the way we conceptualize financial affairs, is FINANCIAL CONCEPTS ARE MOVING OBJECTS, whereby the non-physical, i.e. financial concepts, is understood in terms of the physical, i.e. moving objects. To the extent that moving objects initiate their own or each other's movement, they are also living organisms.

This is why share prices rise and fall, take a tumble, soar, climb and perform various kinds of acrobatics. This is why the dollar jumps and rises, and share prices give the dollar a lift. This is why trade figures can boost share prices and why the

deficit can cause heavy falls in share prices, so that we can witness a collapse in share prices. This is why the annual rate of inflation can fall to its lowest, or it can be back where it was, or it can rise, and so on, and so forth.

The point I now want to make is that this particular conceptualization immediately assigns a specific status to financial affairs, and money in particular, i.e. the status of a living organism. Money, thus, is not just an object in a transaction controlled by a living organism, the human being, but is a living organism itself, that can interact with other living organisms such as the human being, with control going in both directions. This, I believe, is no small matter in our socio-cultural development as a species. And it is not a simple conjecture either, since it is so systematically reflected in our language, and since this is the only way that is available to us to talk about finances. If one tries to substitute the expressions in the above examples with others which are not motion specific, one will find it extremely hard, if not impossible. And even if one manages to do this exercise, the result will not sound like a financial report at all, i.e. it will not be the same discourse type. Hence this imagery is discourse specific, i.e. it defines the particular discourse type. Here exactly lies the significance of cognitive structures in the analysis of discourse and the justification of a cognitive approach to discourse analysis.

So far financial concepts have figured as living organisms in the reports on the basis of the semantic category of motion. The categories that we shall examine next seem to shift the status of financial concepts even further in the directions of humans, while revealing more aspects of our conceptualization of finances and their significance in our lives.

A physical aspect of human experience is the fact that people, but of course other living organisms, too, fall ill, become weak and then pick up again and restore their physical condition. This situation is clearly reflected in examples (13)-(16):

(13) ... with shares suffering from a bout of uncertain trading.

(14) On the foreign exchanges the pound has weakened....

(15) ... a firm opening on the Wall Street helped the market recover...

(16) ... the dollar strenghthens a little.

The metaphor I would like to suggest at this point is FINANCIAL CONCEPTS ARE LIVING ORGANISMS, whose significance lies in that it directly associates financial states with physical conditions that apply to living organisms only. Given this metaphor, it is not surprising that the conceptualization of financial concepts can go a step further so that they be perceived as human beings. This is achieved by the use of frames that focus on psychological and socio-cultural aspects of human life as in examples (17)-(22):

(17) ... the market was not impressed...

(18) ... the fall in the deficit ... may help to bring more stability to nervous markets.

(19) These facts could not dispel the market's cheerful mood...

(20) ... figures were greeted with disappointment ...

(21) ... the dollar ... has buying power...

(22) Shares gained sixty points in the first hour.

In the first three of these examples, the market is clearly assigned psychological states: it gets impressed, and it can be nervous or cheerful. In (20)-(22) financial concepts acquire social status - hence we greet them in (20). Example (21) highlights another aspect of our socio-cultural orientation: power, and consequently control, appear to be highly valued in our culture. Power, assigned to a financial concept, such as the dollar, makes it not only a person, but a respectable person, too. In (22), gaining is cognitively associated with profit, both concepts involving some kind of purposeful, effortful and socially significant behaviour on the part of the individual. In this example, purposefulness and social significance are assigned to shares, which are thus perceived as human beings.

It has probably become obvious by now that I would like to suggest the metaphor FINANCIAL CONCEPTS ARE PERSONS. Our experiences on the psychological and socio-cultural domains partly enable us to understand financial concepts in terms of certain aspects of these domains and hence view these concepts as persons.

The strength of this metaphor and its effect in our understanding of financial concepts, is further supported by the imagery created through the linguistic realization of the semantic category of aggression, viewed in its institutionalized form, i.e. war.

That financial arrangements and negotiations are seen as battles with winners and losers is clearly illustrated in (23):

(23) The hotel-and-drinks group Grand Met has stepped up its battle to win control of the French Cogniac House Martell.

The concept of aggression is further promoted in (24):

(24) The dollar gained ground against most major currencies in quiet trading.

The emerging image here involves a battleground on the one side of which is the dollar, the major opponent, and on the other, the major currencies have joined forces to face the common enemy: the dollar. Apparently, on one of the confrontations, the dollar ranks advance and gain ground. The whole concept here is very clear and quite forcefully presented. Further examples of aggression with their associated scenes and frames point to the same direction, as in (25) and (26):

(25) ... the background threat of Central Bank intervention was enough to ...

(26) The take of a battle for Bristol moved to a close today.

Threats, battles, winning and losing dominate the scene of financial activity, which is thus understood in terms of aggression and war. The metaphor that seems to account for such conceptualizations of financial activity is FINANCIAL ACTIVITY IS WAR.

Let us now examine how it is possible for us to conceptualize financial activity in this way. War is an institutionalized form of human aggression, which in other forms is not unknown to other living organisms such as animals, birds, etc. Aggression leads to survival and death, i.e. it affects life in dramatic ways. The institutional nature of war is reflected in its definition

as a structured activity: it consists of battles, i.e. events in space, i.e. the battlefields, and time, where the participants, the opponents, are engaged in a specific act, i.e. in fighting, which results in the assignment of power to one of the components, the winner, and leaves the other component, the loser, at a disadvantage. Financial activity on the other hand, also being significant in our lives, must inevitably be structured, if it is to be sustained. Apparently, the WAR metaphor that I have suggested, provides a way to conceptualize it and structure it: the participants in the activity, i.e. the financial organizations, currencies, etc., are the adversaries, the confrontation, i.e. the financial action itself, is a battle. At the end of the action one of the adversaries is the winner and the other is the loser. Further threats between adversaries may lead to further action, etc. etc.

I believe that this WAR metaphor is very significant in our conceptualization of finances in general and in the ontological perspective we form of financial concepts in particular. Conceptualizing financial activity as war, and experiencing it through language as such must inevitably relate to the way we live our lives.

CONCLUSIONS

So far I have analysed some expressions appearing in financial reports in terms of four conceptual metaphors: FINANCIAL CONCEPTS ARE MOVING OBJECTS, FINANCIAL CONCEPTS ARE LIVING ORGANISMS, FINANCIAL CONCEPTS ARE PERSONS, and FINANCIAL ACTIVITY IS WAR.

I would further like to suggest conflating the first three of these into the third one, namely that FINANCIAL CONCEPTS ARE PERSONS, since people are also living organisms and moving objects. In fact, it appears that this metaphor is structured

according to the kinesthetic, psychological and social domains of human experience and this is what makes it so powerful.

Another claim that has also been made in this paper is that if, at least partly, we conceptualize financial affairs in terms of the metaphors FINANCIAL CONCEPTS ARE PERSONS and FINANCIAL ACTIVITY IS WAR, then, talking about financial affairs in this way must affect the way we think and act in relation to this domain of experience.

Moreover, I have claimed that these metaphors partly accounting for the imagery occurring in the reports, also characterize this particular discourse type. Hence my belief, that the study of metaphor can shed some light on the processes that affect the cognitive structure of discourse. On the evidence already presented, it seems that cognitive structure is not only important in discussing problems in syntax, lexical semantics and semantic categorization - as Lakoff and his collegues have often emphasized - but it is an important issue in the semantic analysis of discourse too. And, if we accept the theory, it could not be otherwise: our cognitive processes could not possibly affect only one or two levels of linguistic production selectively. Rather, they permeate all linguistic production and communication, along with other human activities, and it is only a matter of linguistic research to show how this is happening. I believe that a cognitive approach to discourse analysis can be fruitful in this respect and, in this paper, I hope to have demonstrated how it can be realized.

Notes

* An earlier version of this paper was presented at the AILA 9th World Congress, held in Halkidiki, Greece, in April 1990. I am indebted to all conveners who participated in the discussion that followed the reading of the paper and helped me to clarify certain points in it. All shortcomings are, of course, mine.

1. I would like to thank all those former students of mine who helped me record and transcribe my data and especially Alex Birtles who did the final editing.

2. Apart from the sources mentioned above, the theoretical background of this statement is to be found in the Invariance Hypothesis, as conceived and developed in Lakoff (1990).

3. For a categorization of verbs of motion in the framework of prototype theory, see Antonopoulou, (1987).

4. Lakoff and Johnson (1980) and Lakoff (1987) have extensively discussed the metaphors MORE IS UP, LESS IS DOWN and the associated ones UP IS GOOD, DOWN IS BAD, which also relate to the orientation of the human body. Our findings are in line with this construal, and further spell out its consequences in the particular discourse type under examination.

5. In fact, this cultural implication is also based on physical reality, in which upright position is associated with health, vigour, prime etc. If some kind of motion is unstable it is a sign of weakness and may result in a fall from the upright position, i.e. in death. This is true of most plants, animals and human beings.

6. For a different categorization of verbs of motion, not necessarily involving an agent in their construal, see Lehrer (1990), who considers the instances of apparently agentless motion verbs as a case of polysemy.

Bibliography

Antonopoulou, E., (1987), Prototype Theory and the Meaning of Verbs, with Special Reference to Modern Greek Verbs of Motion, unpublished PhD disertation, Univ. of London.

Dijk, Teun van A., (1977), Text and Context, Longman, London and New York.

Fillmore, Ch. J., (1977), Scenes-and-Frame Semantics, in Zampolli, A. (ed.), Linguistic Structure Processing, North Holland Publishing Co., Amsterdam, 55-81.

Lakoff, G., (1987), Women, Fire and Dangerous Things, The University of Chicago Press, Chicago and London.

Lakoff, G., (1990), The Invariance Hypothesis : is abstract reason based on image schemas?, in Cognitive Linguistics 1:1, 39-74.

Lakoff, G. and M. Johnson, (1980), Metaphors We Live By, The University of Chicago Press, Chicago.

Lakoff, G. and M. Turner, (1989), More Than Cool Reâson, The University of Chicago Press, Chicago and London.

Langacker, R., (1987), Foundations of Cognitive Grammar, vol. I: Theoretical Prerequisites, Stanford University Press, Stanford, California.

Lehrer, A., (1990), Polysemy, conventionality, and the structure of the Lexicon, in Cognitive Linguistics, 1:2, 207-246.

Marmaridou, A.S.S., (1987), Semantic and Pragmatic Parameters of Meaning: On the interface between Contrastive Text Analysis and the production of translated texts, in Journal of Pragmatics 11, 721-736.